We have for the first time, using a rapid isolation protocol of EBV-specific T cells, treated and cured a patient suffering from PTLD with multiple associated tissue lesions, using her haplo-identical mother as a donor. This treatment approach paves way for a new possibility to within days treat patients with life-threatening EBV-associated malignancies.

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### ALLOGENEIC STEM CELL TRANSPLANTATION WITH REDUCED INTENSITY CONDITIONING AS TREATMENT FOR MATURE T-CELL LYMPHOMAS

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**Background:** For aggressive lymphomas a T-cell phenotype confers a poor prognosis. Current therapeutic strategies for T-cell non-Hodgkin lymphoma (NHL) are poorly defined. Allogeneic stem cell transplantation (Allo-HCT) is a potentially curative option but associated with high non-relapse mortality (NRM). Reduced intensity conditioning (RIC) is designed to minimize NRM while using the benefits of the graft-versus-lymphoma effect. Here we report retrospective analysis of patients with T-cell NHL who underwent Allo-HCT with RIC using fludarabine and melphalan.

**Patients and Methods:** A consecutive case-series of 27 patients with mature T-cell NHL were included. All patients underwent RIC with fludarabine and melphalan. Histologies included: PTCL NOS (n = 5); AILD (n = 3); ALCL (n = 2; both alk+); rare histologies (n = 6) (NK/T cell, enteropathy type, hepatosplenic); and cutaneous T-cell lymphomas (n = 11). Most patients (n = 18, 67%) had advanced disease at the time of transplant: relapse/induction failure = 17, progression = 1. The rest of the patients were in CR1 = 1, CR2 = 5, PR = 3. The median age was 50 years (range: 19-68), 74% were male (n = 20). The time from diagnosis to transplant for majority of the patients (n = 20, 74%) was more than one year. The median number of prior regimens was 4 (range: 1-9); one patient had a prior autologous transplant. All patients received stem cells, 56% from HLA-matched sibling and 44% from matched unrelated donor. 18 patients (67%) received GVHD prophylaxis with sirolimus/tacrolimus, while 9 patients (33%) received cyclosporine/cellcept based prophylaxis.

**Results:** The median follow-up for the 16 (59%) surviving patients was 24.2 months (range: 5.6-95.3). Day 100 mortality was 22% (n = 6). There were a total of 11 deaths; 5 from disease progression/relapse and 6 from non-relapse causes. 13 patients (48%) experienced acute GVHD: grade I = 4, grade II = 5, grade IV = 4. Among the 17 patients who are evaluable for chronic GVHD, 11 (63%) patients developed an extensive GVHD. The 2-year probability of overall (OS) and disease-free (DFS) survival were 55% (95%CI: 43-65%) and 43% (95%CI: 34-52%) respectively. The relapse/progression and NRM rates at 2 years were 37% (95%CI: 26-52%) and 28% (95%CI: 16-46%) respectively.

**Conclusion:** The overall results show that good long term survival rates and disease control can be achieved with acceptable non-relapse mortality in patients with mature T-cell lymphomas using reduced intensity conditioning.

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### THE IMPORTANCE OF TIMING OF HEMATOPOIETIC STEM CELL TRANSPLANTATION (HSCT) IN PATIENTS WITH T-CELL LYMPHOMAS (T-NHL)

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Patients (pts) with T-NHL have a poor prognosis with standard chemotherapy. HSCT have been used in their management but the most appropriate time for HSCT is not clear. We previously reported the poor outcome of pts with ALK negative (anaplastic lymphoma kinase) anaplastic large cell lymphoma (ALCL) having HSCT after first recurrence (Zamkoff et al, BMT 33:635-8,2004). To further investigate outcomes of pts transplanted for T-NHL, we retrospectively analyzed 33 pts undergoing autologous HSCT from August 2000 to July 2009. 23 were male, 10 female; median age was 53.2 (29 -73) years at time of HSCT. Subtypes of T-NHL included Alk negative ALCL (9) and Alk positive ALCL (1); peripheral T-Cell (PTCL), not otherwise specified (11); Angioimmunoblastic (AILT) (9); Nasal NK/T (2) and cutaneous T-cell (CTCL) (1). 6 pts were in their first complete remission (CR1), 1 in CR1 unconfirmed (CRU1), 10 in first partial remission (PR1), 9 in first relapse (Rel1) with 8 sensitive and 1 refractory, 3 in CR2, and 4 in second or later sensitive relapse (Rel2+). Preparative regimens for HSCT included Cy/TBI (13) or Cy/etoposide/TBI (9), Bu/Cy (6), CBV (4), and BEAM (1).

Among the 12 pts in CR1/CRU1 or PR1 < 200 days from diagnosis (Group 1), there were 2 with Alk negative ALCL, 5 PTCL, 4 AILT, and 1 Nasal NK/T. Among the 21 pts (Group 2), there were 7 with Alk negative ALCL, 1 Alk positve ALCL, 6 PTCL, 5 AILT, 1 Nasal NK/T, and 1 CTCL.

With a median follow-up of 17.6 (0.4-84.0) months post HSCT, the overall survival (OS) is estimated to be 52% and progression free survival (PFS) is 45%. 16 pts have expired. Causes of death include relapse (12), transplant related mortality (1), second malignancy (1), and unknown (2) since no MD follow-up records available.

Among the 17 surviving pts, 10 were among the 12 pts in Group 1. For this group, the OS is 83% with a PFS of 75% at a median follow-up of 18.6 (0.7-60.5) months. 7 additional pts survive among the Group 2 pts; their OS is 33% and PFS is 29% at a median follow-up of 15.2 (13-84) months. In Group 2, surviving pts include 1 of 3 transplanted in CR2; 6 of 13 transplanted in Rel1 or Rel2+ and 0 of 5 in PR1 transplanted >200 days from diagnosis.

In summary, this data would suggest an improved outcome for HSCT in pts with T-NHL when applied earlier in the course of their disease. Such a strategy should be evaluated in a larger prospective trial of HSCT in CR1/PR1 to evaluate the efficacy and safety across the various subtypes T-NHL.

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### PREFERENCE OF PATIENTS AND PHYSICIANS CONCERNING TREATMENT OPTIONS FOR RELAPSED FOLLICULAR LYMPHOMA: A DISCRETE CHOICE EXPERIMENT

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**Background:** Patients with symptomatic relapsed follicular lymphoma, together with their physicians, must choose between a variety of treatment options. The purpose of this study was to elicit relative preferences for attributes associated with different treatment options amongst lymphoma patients in Alberta, and lymphoma-treating physicians in Canada, using a discrete choice experiment (DCE).

**Methods:** 180 patients aged 18-65 years and 252 physicians received background information and a questionnaire containing the DCE. Treatment administration, toxicity, average remission length, and cost were the attributes evaluated for four treatment options: standard chemotherapy (CT), radioimmunotherapy (RIT), high-dose chemotherapy and autologous (AUTO) or allogeneic (ALLO) stem cell transplantation. In a series of multiple choice questions, respondents were asked to choose between two unlabeled treatment options, described according to the attributes where the attribute levels were different for each option. The DCE was analyzed using a random effects logit model. Marginal rates of substitution calculated from regression coefficients provided information about preference for the treatment attributes.

**Results:** 81 patients (45%) and 48 physicians (19%) completed the questionnaire. Responding patients had a mean age of 54.7 years and were on average 4.4 years from initial diagnosis. 93% of patients